Long-Run Revenue Effects of Changes in Cost Recovery Allowances

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Long-Run Revenue Effects of Changes in Cost Recovery Allowances

Executive Summary

Recent discussions promoting tax reform often include proposals to curtail accelerated depreciation as the primary means of offsetting the cost of other tax cuts. The curtailment of accelerated depreciation can raise revenue for tax reform ***in the short term***. However, such revenue increases fall off over the long term because of the nature of the depreciation allowance. Reducing depreciation deductions is largely a ***front-loaded revenue increase***.

Revenue estimates quantify the effects of proposed changes in tax policy. Thus, when Congress considers a change in the law affecting federal receipts, the staff of the Joint Committee on Taxation (JCT) prepares a revenue estimate. These revenue estimates rely on a predetermined set of budget scoring rules and estimating conventions which can distort the long term budget consequences to the federal government of cost recovery proposals. Given the predetermined framework of the fixed budget baseline, the 10-year budget window, and cash-flow accounting, revenue estimates of many proposals – including accelerated cost recovery – tend to distort the true revenue raising potential of the provision.

The problem with relying on cuts in accelerated depreciation for tax reform is that changes in the depreciation rules may accelerate or delay a deduction for tax purposes, but they do not alter the total amount deducted. Therefore, modifications to the depreciation rules may decrease deductions during the budget window, and thereby increase revenues during that period. However, those deductions will be available, and taken, beyond the budget window. These deferred deductions simply reduce revenues in future budget periods.

Therefore, future revenues collected by the federal government will fall short of expectations, due to these unrecognized losses. In other words, the ten-year budget window fails to depict accurately the consequences of using repeal of accelerated depreciation as a long term revenue offset – deferring the budget losses for a future Congress. In addition, accelerated depreciation plays an important role in stimulating investment and economic growth. Loss of that provision would alter the investment decisions of many capital-intensive businesses.

Offsetting the cost of tax reform with a temporary timing change of receipts is imprudent tax policy. Because of the front-loaded nature of the depreciation allowance, a tax reform measure that relies on cuts in accelerated depreciation as a long-term revenue offset would have the effect of increasing future budget deficits. Those deficits would force the government to consider budgetary changes in the future – including the possible restoration of higher tax rates. Capital intensive businesses that invest in domestic plant and equipment could thus face the permanent loss of accelerated depreciation without the benefit of reduced tax rates.

Long-Run Revenue Effects of Changes in Cost Recovery Allowances

I. Introduction

Recent discussions promoting tax reform often include proposals to curtail accelerated depreciation as the primary means of offsetting the cost of other tax cuts.[1] The curtailment of accelerated depreciation can raise revenue for tax reform in the short term. However, such revenue increases fall off over the long term because of the nature of the depreciation allowance. Reliance on cuts in accelerated depreciation to keep tax reform budget neutral over the long term is seriously misplaced.

The problem with relying on cuts in accelerated depreciation for tax reform is that changes in the depreciation rules may accelerate or delay a deduction for tax purposes, but they do not alter the total amount deducted. Therefore, modifications to the depreciation rules may decrease deductions during the budget window, and thereby increase revenues, but those deductions will be available beyond the budget window.[2] Cuts in depreciation deductions are largely a ***front-loaded revenue increase***.

Because of the nature of the depreciation allowance, a tax reform measure that relies on cuts in accelerated depreciation as a long-term revenue offset would have the effect of increasing future budget deficits. Those deficits would force the government to consider budgetary changes in the future – including the possible restoration of higher tax rates. Capital intensive businesses that invest in domestic plant and equipment could thus face the permanent loss of accelerated depreciation without the benefit of reduced tax rates.

The following sections address these issues in greater detail, taking a much longer view of the budgetary impacts of changing the tax treatment of investment and examining how the long-term pattern of revenues from altering the depreciation schedule is likely to affect aggregate tax revenues over the next twenty years.

[1] For example, refer to the "Bipartisan Tax Fairness and Simplification Act of 2011," offered by Senators Ron Wyden and Dan Coats and the "Tax Reform Act of 2014," offered by then House Ways and Means Committee Chairman, Dave Camp.

[2] These deferred deductions simply reduce revenues in future budget periods.

II. Revenue Analysis and Cost Recovery

Revenue estimates quantify the effects of proposed changes in tax policy. Thus, when Congress considers a change in the law affecting federal receipts, the staff of the Joint Committee on Taxation (JCT) prepares a revenue estimate. These revenue estimates rely on a predetermined set of budget scoring rules, established in the Congressional Budget and Impoundment Control Act of 1974 (the Budget Act) which introduced discipline to the annual federal budget process.[3]

Since that time, in conjunction with increasing budget deficits, a number of legislative changes made it more difficult for Congress to enact revenue losing measures. Members of Congress who wanted to offer a specific tax incentive provision were generally required to find a revenue increasing offset to their proposal.[4]

It is important to recognize that existing revenue estimating conventions can distort the long term budget consequences to the federal government of cost recovery proposals. Given the predetermined framework of the fixed budget baseline, the 10-year budget window, and cash-flow accounting, revenue estimates of many proposals – including accelerated cost recovery – tend to distort the true nature of the provision.

The following section explains the fundamental concepts of revenue estimating. Then, the analysis applies these concepts to JCT revenue estimates of accelerated cost recovery to demonstrate the artificial nature of the estimating process.

A. Key Concepts of Revenue Analyses

Revenue Baseline – The starting point for many revenue estimates is the revenue baseline, which is the benchmark against which proposed changes in the law are measured.[5] This is a 10-year projection of federal revenues under

[3] Public Law 93-344. Other factors have influenced the present-day scoring rules, including the Balanced Budget and Emergency Deficit Control Act of 1985 (Gramm-Rudman-Hollings) which established maximum deficit amounts and provided that, if the deficit exceeded the statutory limits, the president would be required to issue a sequestration order under which discretionary spending would be reduced by a uniform percentage.

[4] Thus, the specific size of a revenue losing provision became a much more important consideration in the legislative process.

[5] There are two revenue baselines – one prepared by the CBO and one prepared by the Office of Management and Budget (OMB) in connection with the annual budget submitted to the Congress by the president. There are two ways in which the revenue baselines of these two organizations may differ. First, the revenue baselines may differ depending upon the macroeconomic forecasts used by each office. Second, the revenue baselines will invariably differ because the OMB includes in its revenue baseline an assumption that the president's budget proposals are all enacted into law. The CBO baseline does not include such an assumption.

present law; thus, the revenue baseline generally is constructed assuming no changes in current policies. The revenue baseline represents the best estimate of the receipts and outlay activities by the federal government based on current macroeconomic forecasts, such as interest rates, growth in the economy, and changes in employment levels.

***Budget Window* –** Revenue estimates are generally required to be provided as point estimates, specifying a dollar amount, rather than a range of possibilities for each year in the "budget window." Revenue estimates rely on a fixed ten-year budget period. This means that only those changes that occur within this window will contribute to the revenue estimate.[6]

While many revenue proposals are effective on a taxable year or calendar year basis, the JCT prepares revenue estimates for each year within the budget window as fiscal year estimates (for the period from October 1 to September 30, which is the federal government's fiscal year).[7]

***Cash Method of Accounting* –** In general, the estimates of revenues and outlays for purposes of the federal budget are measured on a cash basis – thus, the budget measures the cash flows that occur with the collection of taxes and other forms of federal income during each fiscal year during the budget scorekeeping window and the disbursement of funds for various federal programs.[8] The theory is that using a single method of accounting for revenues and outlays will allow the comparison of spending and revenue proposals on a comparable basis.[9]

However, cash-flow revenue estimates of accelerated methods of depreciation (as well as many other tax provisions) show significant revenue losses in early years that are offset by revenue increases (associated with the reduced amounts available for cost recovery) beyond the budget period.

The revenue baseline captures the current-law depreciation deductions claimed over the 10-year budget period. The revenue analysis calculates the proposed changes to depreciation deductions (e.g., in this case alternative depreciation

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[6] Historically, revenue estimates were prepared for a five-year period, but the period was extended to 10 years in the late 1980s.

[7] In addition, revenue estimates are required to be expressed in nominal dollars.

[8] For example, such entitlement programs as Social Security, defense spending, transportation programs, etc., for the same period.

[9] Although Federal revenues and outlays generally are calculated on a cash basis, there are two notable exceptions to this cash-basis accounting for outlay purposes. The Federal Credit Reform Act requires that the budget recognize the present value of expected cash flows from new direct loans and loan guarantees at the time the loans are disbursed, rather than over the life of the loans. In addition, interest on federal debt is included in the federal budget as an outlay when the debt is incurred, rather than when the interest is paid. Refer to *Comparing Budget and Accounting Measures of the Federal Government's Fiscal Condition,* Congressional Budget Office, December 2006.

system (ADS) method) for capital investment that is subject to the change. The net difference between the baseline and the proposed change provides the revenue estimates displayed on the JCT revenue tables.

Given the nature of accelerated cost recovery – simply a change in the timing of deductions – the 10-year budget period fails to capture the offsets in revenue losses that occur over the long term. In fact, the revenue pattern attributable to cost recovery proposals simply capture the loss of the front-loaded deductions, they do not increase the amount deducted. Examining the cost recovery patterns beyond the ten-year window will more accurately reflect the long-term revenue costs of these cost recovery proposals.

B. Revenue Estimates that Eliminate Accelerated Cost Recovery

For Federal tax purposes, taxpayers may claim an annual depreciation deduction for the cost of tangible physical property used for the production of income. Currently, the modified accelerated cost recovery system (MACRS) determines the annual amount of depreciation that a taxpayer may claim.[10] MACRS assigns to specific asset classes a depreciation method, useful life (recovery period), and a "placed in service" convention.

The taxpayer may apply either the 200-percent or 150-percent declining balance method to determine the annual depreciation amount. MACRS recovery periods range from three to 20 years for most tangible personal property. Generally, tangible property must adopt a mid-year convention that assumes the asset was placed in service midway through the tax year, thus allowing only half of the first-year's depreciation deduction (Refer to Appendix A, Table A-1)

In recent tax expenditure estimates and tax reform proposals, the JCT measured changes to cost recovery allowances as the difference between current law and cost recovery under the ADS (sec. 168(g)).[11] ADS provides for straight-line recovery over tax lives that are longer than those permitted under MACRS (Refer to Appendix A, Table A-2).[12]

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[10] MACRS was part of the Tax Reform Act of 1986, Public Law No. 99-514, section 201(1986).

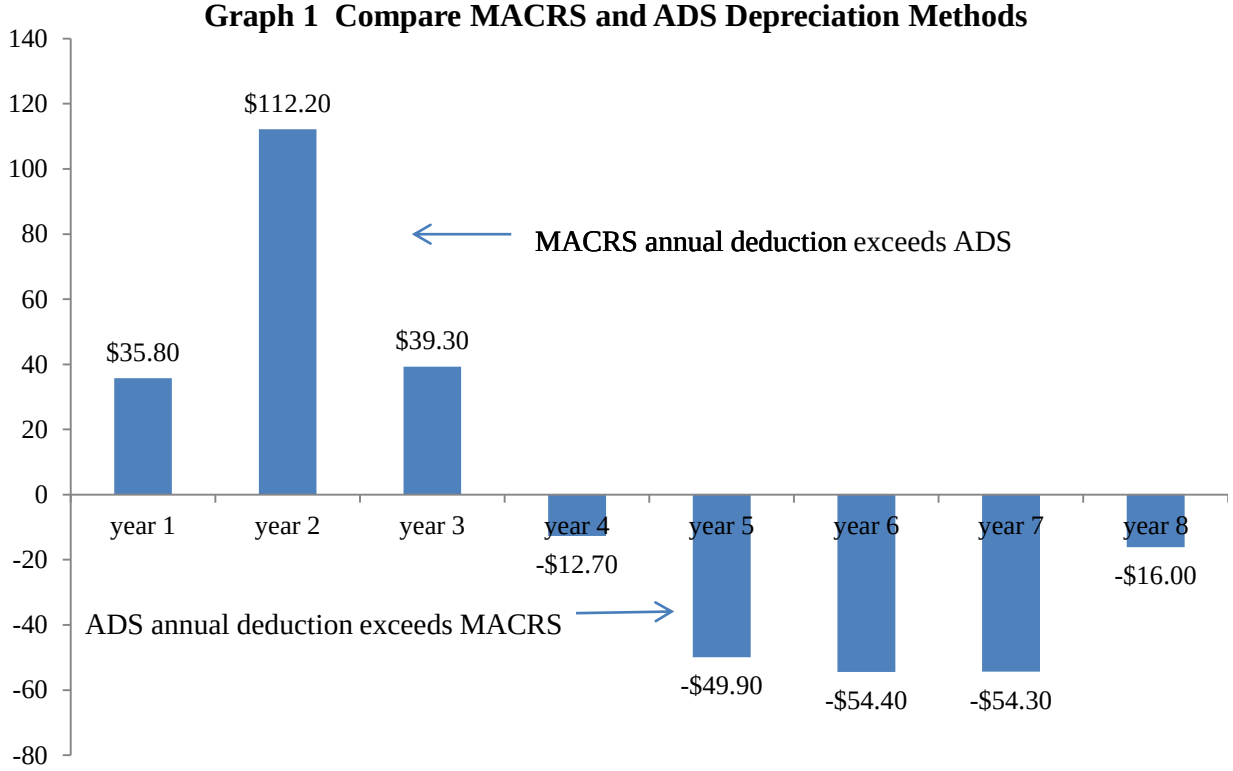
[11] Many economists believe that ADS represents the 'normal' pattern of cost recovery. Therefore, for purposes of tax expenditures and in such tax reform proposals as those proposed by Chairman Camp and Senator Widen, the comparison is between current law and the ADS. However, modifications to current law cost recovery may include a wide variety of options.

[12] The proposed "Tax Reform Act of 2014" included provisions to allow an election for inflation adjustments of the annual depreciation allowance.

Table 1 – Comparison of the Annual Cost Recovery under MACRS and ADS									
Year:	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**Total**
MACRS	107.10	255.10	182.20	130.20	93.00	88.50	88.60	55.30	$1,000
ADS	71.30	142.90	142.90	142.90	142.90	142.90	142.90	71.30	$1,000
Difference	35.80	112.20	39.30	-12.70	-49.90	-54.40	-54.30	-16.00	0

When estimating the change in budget receipts of these two cost recovery methods (MACRS and ADS), the analysis simply applies the methods to the same asset and calculates the difference between the annual deductions. Table 1 provides an example of the nature of accelerated cost recovery. In this example, the MACRS cost recovery relies on 200-percent declining balance method of depreciation, and the half-year convention applies. The ADS relies on straight-line method of depreciation and the half-year convention. In both cases, the asset cost is $1,000 and the recovery period is 7 years.

Graph 1 Compare MACRS and ADS Depreciation Methods



One important feature of this example is that the total amount available for cost recovery remains unchanged. MACRS does not provide additional deductions; it merely allows those deductions to be taken earlier than under ADS. This example provides the basis for understanding the revenue pattern associated with a proposal to eliminate accelerated cost recovery methods. It is clear from

this example, particularly over the 10-year budget window, that revenue estimates of proposals to eliminate accelerated cost recovery simply move deductions from one period to another.

C. Long-Term Revenue Effects

Table 2 provides two revenue estimates. The first estimate is the JCT revenue estimate associated with the most recent proposal for eliminating accelerated depreciation provisions – the "Tax Reform Act of 2014," introduced by then House Ways and Means Committee chairman Camp ("Camp proposal"). The second estimate reflects the revenue analysis associated with a stand-alone proposal to eliminate accelerated depreciation provisions.[13]

While both estimates rely on the standard JCT methodology, it is important to note three differences between the two estimates. First, the provision in the Camp proposal is part of a larger tax reform package that includes changes to corporate income tax rates. Second, the Camp proposal includes a provision which provides for an election to index the deduction for inflation. Third, the Camp proposal delays the effective date, applying the proposal to property placed in service after 2016.[14]

Since the JCT revenue analysis of the proposal contained in the Camp proposal incorporates the effects of the reduced corporate tax rates, it does not reveal the full effect of eliminating methods of accelerated cost recovery. This is because, when estimating the revenue effects of a reform package, it is customary to start the analysis with the tax rate reductions, then isolate the effects of eliminating accelerated depreciation (evaluated at the new rates contained in the proposal).[15]

In addition, the provision takes effect for property placed in service after December 31, 2016, so the quarterly tax payments (in the fiscal year) and revenue increase would begin to show in 2016 and on the 2017 tax return which the taxpayer files in 2018.[16] This has the effect of maximizing the revenue

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[13] Both revenue analyses incorporate a behavioral response to proposals, consistent with JCT methodology.

[14] These differences would result in lower revenue estimates than if the estimate were a stand-alone provision to eliminate accelerated depreciation methods. In addition, the JCT does consider separately the macroeconomic feedback effects, but does not include dynamic scoring methodologies in the revenue estimates. Dynamic scoring methodologies would incorporate changes to the economic baseline that would result from effects of the legislative changes. House Resolution 5, adopted January 6, 2015, requires the JCT and the CBO to use dynamic scoring over a 10 year period and make qualitative comments on potential revenue effects over 30 years.

[15] This effect is pronounced because, the pattern of the revenue loss associated with the corporate tax rate decrease is one that grows steadily over time.

[16] In addition to the timing effects associated with the annual differences in the two depreciation methods, the revenue analysis includes another timing feature that distorts the revenue pattern – the choice of an effective date. This estimate demonstrates the ability to 'maximize the revenue pattern' within the budget period by delaying the effective date. The first revenue increase would not materialize until 2017, but the pattern which reverses the revenue increasing trend (demonstrated in Graph 1) would fall outside the budget period.

increase by including the tax years with the largest revenue changes within the budget window (overstating the long-run revenue effects).

The stand-alone proposal is similar to the provision contained in the Camp proposal as it compares the revenue differences eliminating MACRS and changing to ADS. However, it does not incorporate the reduced corporate tax rates. Also, to capture the full effect of the revenue pattern, the effective date is set at the beginning of the budget period, rather than several years later.

In both estimates, in any given year, the total revenue effect incorporates changes in the depreciation deduction for assets purchased in the current as well as prior tax years starting with the year the provision is effective. The asset composition reflects all the various types of assets that comprise the total new investment. Each year's investment has a corresponding depreciation deduction that reflects the associated cost recovery methods and recovery periods applicable to each investment class.

Prospectively, the revenue in a given year represents the portion of the annual depreciation deduction associated with each year's investment – also referred to as the 'vintage.' The sum of each vintage's annual depreciation deduction represents the total deduction. The revenue estimate calculates each vintage's depreciation using the MACRS method, then using the ADS method. For example, for the Camp proposal, tax returns filed in 2020 (for the 2019 tax year) would calculate the difference between the MACRS and ADS methods for all depreciation claimed in that year. This depreciation would include vintages for investment in the three previous tax years:

- First-year depreciation for assets purchased in 2019;
- Second-year depreciation for assets purchased in 2018; and
- Third-year depreciation for assets purchased in 2017.

Table 2 – Estimated Revenue Effects of Provisions to Eliminate Accelerated Cost Recovery Provisions, Fiscal Years 2014 – 2023[17]

(Billions of Dollars)

Fiscal Year	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	Total
Tax Reform Act of 2014*	-2.5	-9.0	-1.0	26.0	45.9	50.6	47.2	42.4	36.8	59.4	269.5
Stand-Alone Proposal †	–	39.6	57.4	64.3	66.6	67.3	55.6	51.0	47.0	44.5	493.3

*The proposed change includes a provision which provides for an election to index the deduction for inflation. The proposal applies to property placed in service after 12/31/16. The period following enactment of the legislation, but before the effective date of the proposal allows a businesses to accelerate their investment activities.
†The proposal applies to property placed in service after 12/31/14.

[17] Refer to the Joint Committee on Taxation, JCX-20-14, *Estimated Revenue Effects of "the Tax Reform Act of 2014,"* February 26, 2014.

Extending this analysis to the later years in the budget window indicates that the revenue stream begins to erode and recoup deductions previously deferred. Specifically, capital investment placed in service in the later years of the budget window would dampen significantly the positive revenue generated from replacing MACRS with ADS in future years.[18]

Graph 2 depicts the net revenue estimate of (1) a stand-alone proposal to eliminate accelerated depreciation (2) the depreciation provision in the Camp proposal. This estimate extends the budget period to the second ten-year budget period. For purposes of this analysis, the stand-alone proposal would be effective for property placed in service after December 31, 2014.

The graph demonstrates that the second ten-year period contains a significantly dampened revenue gain for depreciation. The projected revenue from the stand-alone provision and the provision contained in the Camp proposal start to fall off after only four years and continue to decline thereafter. Consequently, as a long-term revenue source for tax reform, eliminating MACRS will not provide a sustainable revenue increase. In other words, eliminating MACRS is not useful for broadening the tax base, as it mainly shifts the deductions from one tax year to another.

The blue line in the graph represents the revenue increase from the timing change in depreciation deductions for each asset class calculated using MACRS and ADS.[19] The estimate provides the estimated long-term revenue effect of eliminating MACRS in the absence of comprehensive tax reform.[20] The red line represents the estimated revenue increase from the timing change in depreciation deductions for each asset class, assuming it were enacted as part of a larger tax reform package (that included a reduction in the corporate tax rate).

It is important to reiterate that the total value of depreciation deductions that taxpayers may take ***does not change***. Only the year in which the taxpayer may claim such deductions changes. In other words, limiting depreciation deductions to the ADS rather than MACRS depreciation eliminates the front-loaded nature of those accelerated deductions. The ***ten-year estimated revenues for such a change are much larger compared to the long-run effects*** of this change.

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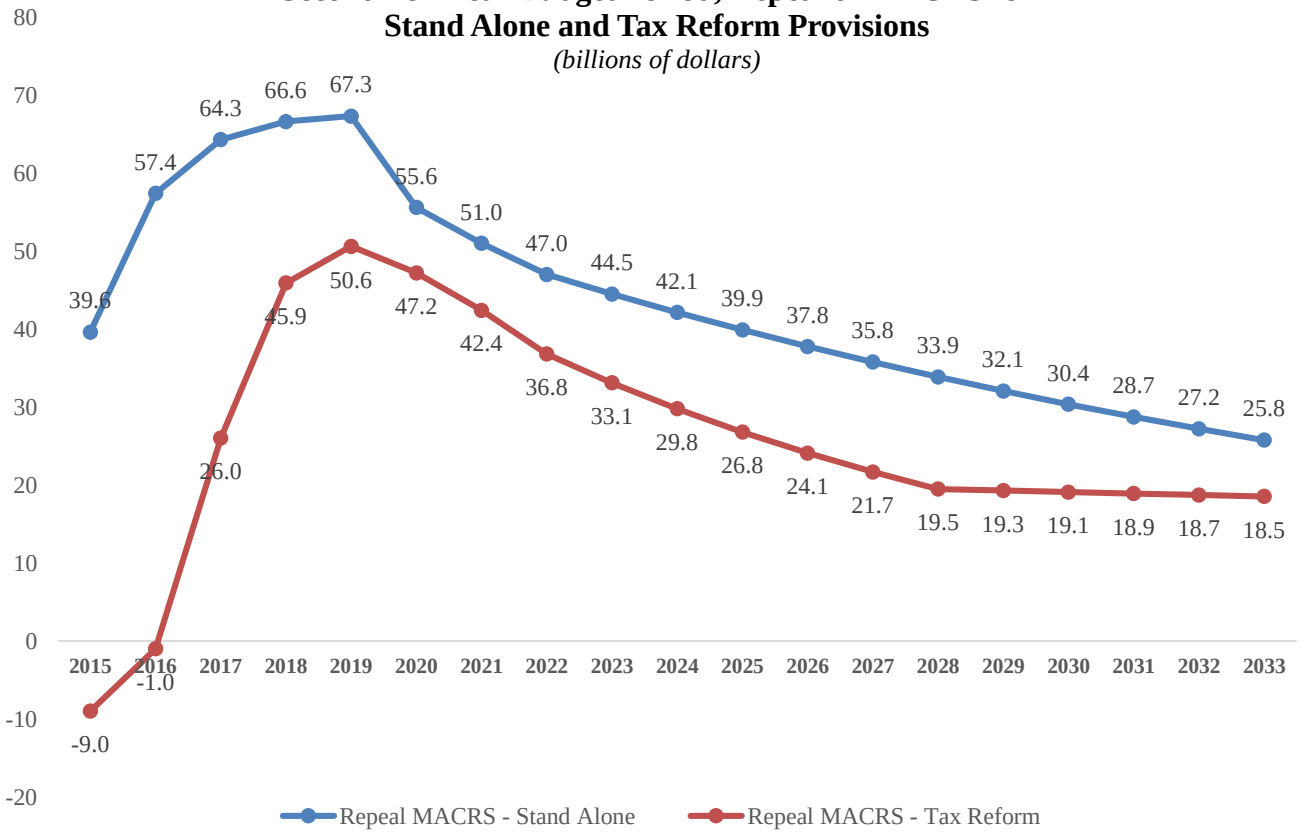
[18] This is true for all the capital investment that occurs in the final years of the budget period.

[19] To reflect accurately the annual depreciation deduction, the investment for each asset class (and associated class life) is estimated. In other words, as shown in Appendix B, based on historical trends, the new investment assumes a similar composition to past investment. Each asset class receives depreciation treatment as provided under current law (MACRS) and proposed law (ADS). The bars represent the difference between these two calculations, beyond the current budget window.

[20] It is important to note, if the net depreciation difference was evaluated in conjunction with a rate reduction, then the net effect would be a revenue loss.

Graph 2 Estimated Revenue Effects during the Second Ten-Year Budget Period, Repeal of MACRS for Stand Alone and Tax Reform Provisions

(billions of dollars)

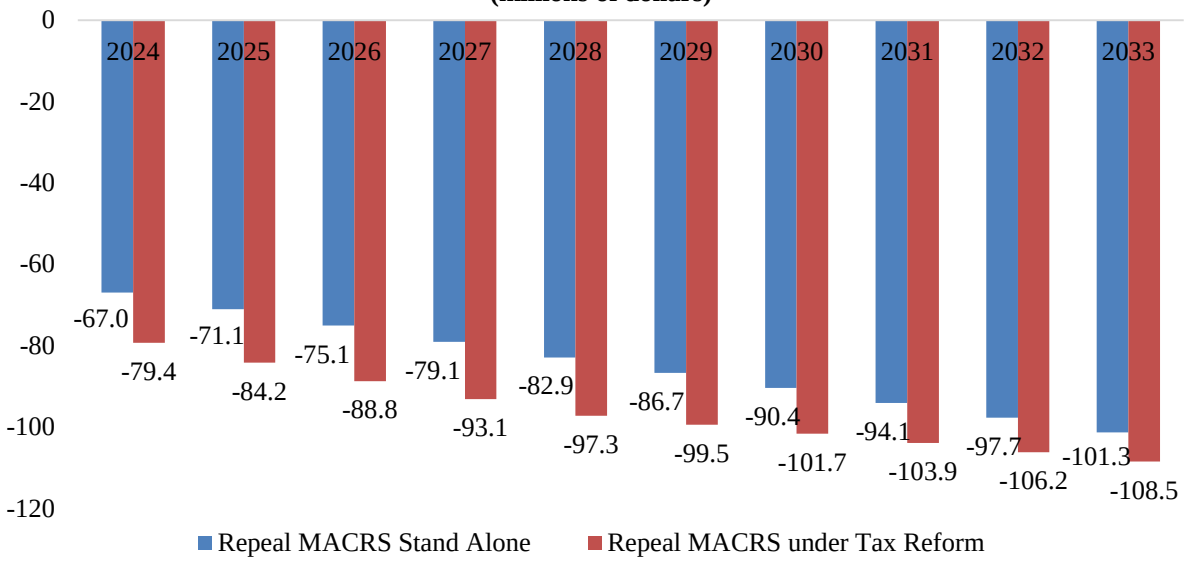


The revenue pattern associated with eliminating accelerated depreciation differs from other revenue patterns, particularly those revenue estimates that move with the level of economic activity (as opposed to those that shift revenue from one budget period to another). Specifically, revenue losses associated with most tax credits or rate changes move with the projected economic activity or growth of the tax base.

This increasing pattern occurs because, over the budget period (first and second ten-year periods) the aggregate economic activity (e.g., business receipts, individual taxable income, numbers of tax filers – business and individual) is projected by the Congressional Budget Office to increase steadily. Therefore, applying a rate decrease or tax credits to this economic activity will generate steadily increasing revenue loss throughout the budget period.

During the ten-year budget window, it is easy to give the appearance of offsetting revenue effects. Yet, beyond the limited period – in the second ten years – the revenue shortfall continues to grow and add to the budget deficit.

Graph 3 Estimated Net Revenue Shortfall during the Second Ten-Year Budget Period
(millions of dollars)



Graph 3 displays the estimated net revenue shortfall that results in the second ten-year budget period from the repeal of MACRS (both the stand alone provision and the provision contained in the Camp proposal) as a means of paying for a tax decrease that moves with economic growth (including a corporate rate cut). Future revenues collected by the Federal government would fall short of expectations as the result of enactment of a tax reform measure that relied on the repeal of MACRS. In other words, the ten-year budget window fails to depict an accurate picture of using repeal of accelerated depreciation as a revenue raiser – deferring the budget losses for a future Congress.

III. Conclusions

Revenue increases associated with eliminating accelerated depreciation simply shift depreciation deductions from earlier to later tax periods. Proposals to modify the depreciation rules may accelerate or delay a deduction for tax purposes, but ***they do not alter the total amount deducted***.

Revenue estimates rely on a predetermined set of budget scoring rules and estimating conventions which distort the long term budget consequences to the Federal government of cost recovery proposals. Given the predetermined framework of the fixed budget baseline, the 10-year budget window, and cash-flow accounting, revenue estimates of many proposals – including accelerated cost recovery – tend to distort the true nature of the provision.

Therefore, modifications to the depreciation rules may decrease deductions during the budget window, and thereby increase revenues, but those deductions will be available beyond the budget window. ***Eliminating accelerated depreciation deductions is largely a front-loaded revenue increase.***

Because of the nature of the depreciation allowance, a tax reform measure that relies on cuts in accelerated depreciation as a long-term revenue offset would have the effect of increasing future budget deficits. Those deficits would force the government to consider budgetary changes in the future – including the possible restoration of higher tax rates. Capital intensive businesses that invest in domestic plant and equipment could thus face the permanent loss of accelerated depreciation without the benefit of reduced tax rates. In addition, accelerated depreciation plays an important role in stimulating investment and economic growth. Loss of these provisions would alter those investment decisions of many capital-intensive businesses.

Appendix A – Recovery Periods

Table A-1 – Recovery Period under MACRS and ADS

MACRS Recovery Period	General Rule-ADS Class Life[21]	Type of Property
3 Years	4 years or less	3-year property
5 Years	More than 4 but less than 10 years	5-year property
7 Years	10 or more but less than 16 years and property without a class life (other than real property)	7-year property
10 Years	16 or more but less than 20 years	10-year property
15 Years	20 or more but less than 25 years	15-year property
20 Years	25 or more years	20-year property
25 Years	50 years	Water utility property
27.5 Years	40 years	Residential rental property
39 Years	40 years	Nonresidential real property
50 Years	50 years	Any railroad, grading or tunnel bore

[21] General Rule-Class life refers to the class lives and recovery periods for ADS described in sections 168(c) and (e).

Appendix B – Supporting Data

Table B-1 provides the estimated annual differences in depreciation deductions, by MACRS class life for the projected investment ($1,250 billion) in 2023. The calculations assume that the investment would continue at the projected levels, but the depreciation allowance for tax purposes would change from MACRS to ADS. In most cases, this involves an increase in the recovery period (extending the depreciation over a longer time period) and a decrease in recovery methods (in most cases from 200 percent declining balance to straight line methods, which reduces the allowable amount of depreciation in each year).

The investment relies on data from the Bureau of Economic Analysis investment flows for 2013. The projected values rely on the investment growth rates produced by the Congressional Budget Office. The initial classification into MACRS class lives is consistent with data from the Internal Revenue Service and the assigned values to Bureau of Economic Analysis data.

Table B-1 Estimated Annual Differences in Depreciation Deductions

Tax Year	MACRS Class Life						
	3	5	7	10	15	20	27.5
2023	10,315	56,608	22,665	1,272	1,766	760	26
2024	20,630	135,860	59,498	3,611	6,540	3,077	41
2025	-2,290	58,873	34,246	2,482	5,170	2,565	41
2026	-8,025	12,680	16,234	1,579	3,955	2,093	41
2027	-13,753	7,359	3,348	856	2,853	1,655	41
2028	-6,877	-16,643	1,790	279	1,850	1,250	41
2029	0	-56,608	1,824	-36	1,271	876	41
2030	0	-56,608	-9,710	-36	1,271	529	41
2031	0	-56,608	-28,866	-33	1,285	430	41
2032	0	-56,608	-28,866	-36	1,271	430	41
2033	0	-28,304	-28,866	-783	1,285	430	41
2034	0	0	-28,866	-2,035	1,271	430	41
2035	0	0	-14,433	-2,035	1,285	431	41
2036	0	0	0	-2,035	1,271	430	41
2037	0	0	0	-2,035	1,285	431	41
2038	0	0	0	-1,017	-1,850	430	41
2039	0	0	0	0	-7,063	431	41
2040	0	0	0	0	-7,063	430	41
2041	0	0	0	0	-7,063	431	41
2042	0	0	0	0	-7,063	430	41
2043	0	0	0	0	-3,531	-1,134	41
2044	0	0	0	0	0	-3,742	41
2045	0	0	0	0	0	-3,742	41

Table B-1 Estimated Annual Differences in Depreciation Deductions							
Tax Year	**MACRS Class Life**						
	3	**5**	**7**	**10**	**15**	**20**	**27.5**
2046	0	0	0	0	0	-3,742	41
2047	0	0	0	0	0	-3,742	41
2048	0	0	0	0	0	-1,871	41
2049	0	0	0	0	0	0	41
2050	0	0	0	0	0	0	35
2051	0	0	0	0	0	0	-90
2052	0	0	0	0	0	0	-90
2053	0	0	0	0	0	0	-90
2054	0	0	0	0	0	0	-90
2055	0	0	0	0	0	0	-90
2056	0	0	0	0	0	0	-90
2057	0	0	0	0	0	0	-90
2058	0	0	0	0	0	0	-90
2059	0	0	0	0	0	0	-90
2060	0	0	0	0	0	0	-90
2061	0	0	0	0	0	0	-90
2062	0	0	0	0	0	0	-90
2063	0	0	0	0	0	0	-45
Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**

REFERENCES

Auerbach, A. J. (2001), "Taxation and Corporate Financial Policy", *National Bureau of Economic Research* (NBER), Working Paper 8203, April.

Auerbach, A. J. (2005), "Taxation and Capital Spending", prepared for the Academic Consultants Meeting of the Board of Governors of the Federal Reserve System, October.

Brazell, D. W. and J. B. Mackie III (2000), "Depreciation Lives and Methods: Current Issues in the U.S. Capital Cost Recovery System", *National Tax Journal*, Volume 53, No. 3, Part I, pp. 531-562, September.

Cronin, J. A., et al. (2012), "Distributing the Corporate Income Tax: Revised Treasury Methodology", *Office of Tax Analysis*, U. S. Department of Treasury, Technical Paper 5, May.

Gale, W. G. and P. R. Orszag (2005), "Deficits, Interest Rates and the User Cost of Capital: A Reconsideration of the Effects of Tax Policy on Investment", *Brookings Institution*, Washington, DC, July.\

Hall, R. E. and D. W. Jorgenson (1967), "Tax Policy and Investment Behavior", *American Economic Review*, June, pp. 391-414.

Hassett, K. A. and R. G. Hubbard (1996), "Tax Policy and Investment", *National Bureau of Economic Research* (NBER), Working Paper 5683, July.

Liu, L. (2011), "Do Taxes Distort Corporations' Investment Choices? Evidence from Industry Level Data", mimeo, *Centre for Business Taxation*, Oxford University.

Office of Tax Analysis (2014), "Effective Tax Rate Model", *U.S. Department of Treasury*, July.